



KHC Hospital Improvement Innovation Network

KHC HIIN Measures Dictionary

December 17, 2018
Version 2.3

Change log:

- December 17, 2018 – Added new measure: PVAP (optional); links updated; baselines updated for HIIN Extension, i.e., CDI, falls with injury, SSI measures, VAE and worker safety-patient handling; measure names aligned with CMS terms; measures that utilize the CDC NHSN definition: utilize the definition per NHSN specifications that apply at the discharge date of the patient; standardized wording that varied between measures; update on which measures are preferred (e.g., PrU-1 and READ-1); for SIR measures, the following was added: NHSN calculates – No work needed if rights conferred; sepsis mortality: added “Number of in-hospital deaths due to severe sepsis and septic shock CMS excludes assignment to comfort/palliative care at or within 6 hours of admission to determine sepsis mortality”; definition for readmission inclusions and exclusions spelled out; Removed references to ICD-9.
- November 17, 2018 – Baseline and measure specifications of HIIN-Pru-1, HIIN-Sepsis-1a and HIIN-VTE-1 have been changed; updated the specifications link and footnote for Pressure Ulcer Rate, Stage 3+; Update the AHRQ PSI links to updated v6; Added clarifying note to the numerator for Readmission within 30 Days (All Cause) Rate; updated HIIN data submission schedule; updated data source for Harm Events Related to Workplace Violence; updated Pressure Ulcer topic name to Pressure Ulcer/Injury; added clarifying note for Medicare All-cause Readmissions measure.
- July 12, 2018 – Updated contact information, reviewed and updated links.
- November 9, 2017 – Second release. Add 3/6 hour sepsis bundles, clarified naloxone, falls w/wo injury, Medicare readmissions wording, update data submission schedule, corrected CDI and sepsis measure rates to per 1,000, updated table of contents and data flow map, added NHSN transfer FAQ.
- November 2, 2016 – First release. Includes HIIN Program Core Evaluation Measures and Additional Required Measures, based on HRET Encyclopedia of Measures (EOM) v1.1, which includes a new measure for hospital-onset sepsis. In addition, optional HEN 2.0 carry-over measures have been included in the KHC HIIN measure set (SSI option 2, Falls with/without Injury, CLABSI CLIP bundle, and potentially preventable VTE).

Primary Contacts:

Kansas Healthcare Collaborative
(785) 235-0763

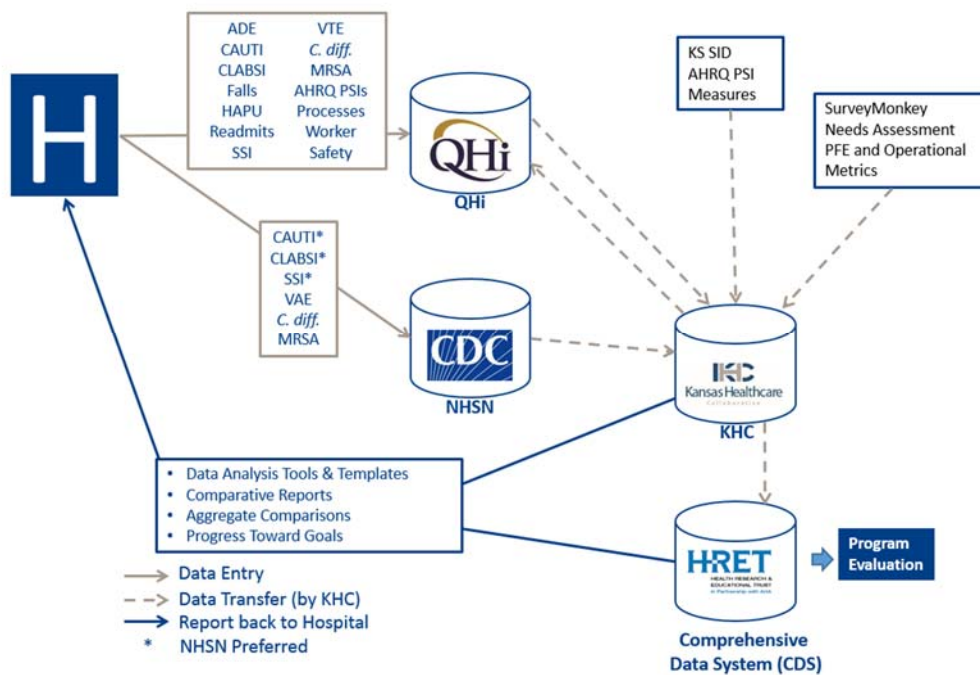
Eric Cook-Wiens – Data and Measures Director
ecook-wiens@khconline.org

Michele Clark – Program Director
MClark@khconline.org

KHC HIIN Data Systems/Sources:

KHA's Quality Health Indicators (QHi)
CDC's National Healthcare Safety Network (NHSN)
KHA's State Inpatient Database
KHC's SurveyMonkey

Data Flow:



NHSN: Instructions for joining the KHC HIIN group to confer NHSN rights.

- How to join KHC group: [www.khconline.org/files/Instructions to Join KHC HIIN NHSN Group.pdf](http://www.khconline.org/files/Instructions%20to%20Join%20KHC%20HIIN%20NHSN%20Group.pdf)

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

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Type: O = Outcome measure (at least one required for each eligible focus area)
P = Process Measure (at least one required for each eligible focus area)*

Data System: QHi = Quality Health Indicators
NHSN = National Healthcare Safety Network
SID = Kansas State Inpatient Database**
Survey = Online survey initiated by Kansas Healthcare Collaborative

Focus Area	Type	Measures	Measure Applicability	Data System	Page #
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Read	O	Readmission within 30 Days (All Cause) Rate	All hospitals	QHi	25
	O	Hospital-Wide All-Cause Unplanned Readmissions – Medicare	All that serve Medicare beneficiaries	QHi	27

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Sepsis	0	Hospital-Onset Sepsis Mortality Rate	Optional	QHi	28
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	0	Surgical Site Infection Standardized Infection Ratio (SIR) <i>Derived</i>	Hospitals that perform any of these inpatient surgeries	NHSN	34
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	0	Harm Events Related to Workplace Violence	All hospitals	QHi	42
MRSA	0	Hospital- onset MRSA Bacteremia Events	All hospitals	NHSN or QHi	43
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*The Kansas State Inpatient Database may be used as a fallback data source for certain measures that can be obtained from inpatient discharge records; however, this data is not timely for improvement purposes.

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Adverse Drug Events – Anticoagulation Safety

ADE: CMS HIIN Evaluation Measure		Outcome Measure
<i>Adverse Drug Events – Anticoagulation Safety - Inpatients</i>		
Measure type	Outcome	
Numerator	Inpatients experiencing high anticoagulation with warfarin	
Numerator Definition	Defined by hospital. Hospitals typically use triggers of INR>5 or >6 for this measure. Changes in measure definition compared to the baseline time period may artificially change the rate.	
Denominator	Inpatients receiving warfarin anticoagulation therapy	
Denominator Definition	Number of inpatients receiving warfarin anticoagulation therapy	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right) \times 100$	
Specifications/definitions Sources/Recommendations	See references below for guidance	
Data source(s)	Numerator: incident reporting systems, trigger tools, pharmacists' intervention systems, medical record review Denominator: billing systems	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible beginning with October 2016.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-ADE-1a

The definition of an adverse drug event is any injury resulting from medication use, including physical harm, mental harm or loss of function¹. Data can be collected through incident reporting, trigger tools, pharmacists' intervention data or administrative data.

The Institute for Healthcare Improvement's (IHI) trigger tool includes a list of known ADE triggers and instructions for measuring the number and degree of harmful medication events. The tool is available online at the following link:

www.ihc.org/resources/Pages/Tools/TriggerToolforMeasuringAdverseDrugEvents.aspx

The Partnership for Patients has gathered many resources for ADE prevention and measurement. These resources are catalogued online at the following link:

https://partnershipforpatients.cms.gov/p4p_resources/tsp-adversedrugevents/tooladversedrugeventsade.html

¹ Bates, D.W., Cullen, D.J., Laird, N., et al. (1995). Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*, 274(1), 29-34.

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Adverse Drug Events – Glycemic Management

ADE: CMS HIIN Evaluation Measure		Outcome Measure
<i>Adverse Drug Events – Glycemic Management</i>		
Measure type	Outcome	
Numerator	Hypoglycemia in inpatients receiving insulin or other hypoglycemic agents	
Numerator Definition	Hypoglycemia defined as plasma glucose concentration of 50 mg per dl or less.	
Denominator	Inpatients receiving insulin or other hypoglycemic agents	
Denominator Definition	Number of inpatients receiving insulin or other hypoglycemic agents	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 100$	
Specifications/definitions Sources/Recommendations	See references below for guidance	
Data source(s)	Numerator: incident reporting systems, trigger tools, pharmacists' intervention systems, medical record review Denominator: billing systems	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible beginning with October 2016.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-ADE-1b

The definition of an adverse drug event is any injury resulting from medication use, including physical harm, mental harm or loss of function². Data can be collected through incident reporting, trigger tools, pharmacists' intervention data or administrative data.

The Institute for Healthcare Improvement's (IHI) trigger tool includes a list of known ADE triggers and instructions for measuring the number and degree of harmful medication events. The tool is available online at the following link: www.ihc.org/resources/Pages/Tools/TriggerToolforMeasuringAdverseDrugEvents.aspx

The Partnership for Patients has gathered many resources for ADE prevention and measurement. These resources are catalogued online at the following link: https://partnershipforpatients.cms.gov/p4p_resources/tsp-adversedrugs/events/tooladversedrugs/eventsade.html

² Bates, D.W., Cullen, D.J., Laird, N., et al. (1995). Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*, 274(1), 29-34.

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Adverse Drug Events – Opioids Safety

ADE: CMS HIIN Evaluation Measure		Outcome Measure
<i>Adverse Drug Events – Opioids Safety</i>		
Measure type	Outcome	
Numerator	Number of patients treated with opioids who received naloxone	
Numerator Definitions	Naloxone may be referred to as Narcan, Nalone or Narcanti	
Denominator	Number of patients who received an opioid agent	
Denominator Definitions	Primarily inpatients but may include outpatient surgery patients. Includes (but not limited to) patients treated with opioids such as fentanyl, hydromorphone, methadone, morphine, oxycodone or other opioid medications. Exclude ED patients receiving naloxone to reverse opioids received before hospital arrival (whether due to recreational opioid use, unintentional overdose, etc.).	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right) \times 100$	
Specifications/definitions Sources/Recommendations	See references below for guidance	
Data source(s)	Numerator: incident reporting systems, trigger tools, pharmacists' intervention systems, medical record review Denominator: billing systems	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible beginning with October 2016.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-ADE-1c

The definition of an adverse drug event is any injury resulting from medication use, including physical harm, mental harm or loss of function³. Data can be collected through incident reporting, trigger tools, pharmacists' intervention data or administrative data.

The Institute for Safe Medication Practices has assembled a number of tools related to drug safety, which can be accessed online at the following link: <https://www.ismp.org/guidelines>

The Partnership for Patients has gathered many resources for ADE prevention and measurement. These resources are catalogued online at the following link: https://partnershipforpatients.cms.gov/p4p_resources/tsp-adversedrugs/events/tooladversedrugs/eventsade.html

³ Bates, D.W., Cullen, D.J., Laird, N., et al. (1995). Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*, 274(1), 29-34.

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Clostridium difficile Rate

Clostridium difficile: CMS HIIN Evaluation Measure		Outcome Measure
<i>C. difficile</i> Rate		
Measure type	Outcome	
Numerator	Total number of observed hospital-onset <i>C. difficile</i> lab-identified events among all inpatients facility-wide, excluding well-baby nurseries and NICUs	
Numerator Definition	Total number of observed hospital-onset (>3days) <i>C. difficile</i> lab-identified events among all inpatients in the facility, excluding well-baby nurseries and NICUs. Positive tests occurring for the same patient and location within 14 days of a previous test are duplicative and should only be counted once.	
Denominator	Patient days (facility-wide)	
Denominator Definition	Patient days (facility-wide)	
Rate calculation	[AG1] $\left(\frac{\text{Numerator}}{\text{Denominator}} \right) \times 10,000$	
Specifications/definitions Sources/Recommendations	Available from the Centers for Disease Control and Prevention	
Data source(s)	NHSN, infection surveillance systems	
Data system(s)	NHSN or QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-CDI-1b

See page two for instructions on joining or conferring updated NHSN rights to the KHC HIIN group.

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

Specification link: www.cdc.gov/nhsn/PDFs/pscManual/12pscMDRO_CDADcurrent.pdf

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data**, must report the numerators and denominators, following the CDC specifications to define *C. difficile*.

The Centers for Disease Control and Prevention (CDC) provides extensive *C. difficile* resources for patients, clinicians, facilities and settings. These resources are available online at the following links:

www.cdc.gov/hai/organisms/cdiff/Cdiff_settings.html

www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Clostridium difficile Standardized Infection Ratio (SIR)

NHSN-reporting Facilities Only

C. difficile: CMS HIIN Evaluation Measure – NQF 1717		Outcome Measure
<i>Clostridium difficile</i> Standardized Infection Ratio (SIR) (<i>C. difficile</i>)		
Measure type	Outcome	
Numerator	Total number of observed hospital-onset <i>C. difficile</i> lab-identified events among all inpatients facility-wide, excluding well-baby nurseries and NICUs	
Denominator	Predicted cases of patients with <i>C. difficile</i>	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right)$	
Specifications/definitions Sources/Recommendations	Available from the Centers for Disease Control and Prevention	
Data source(s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the HRET HIIN group or a state group. NHSN-conferring rights required.	
Data system(s)	NHSN (Calculated) Not available in QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Reported quarterly, beginning Oct 2016 – enter in Monthly	

HIIN-CDI-1a

Specification link: www.cdc.gov/nhsn/PDFs/pscManual/12pscMDRO_CDADcurrent.pdf

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at discharge date of the patient.

The Centers for Disease Control and Prevention (CDC) provides extensive *C. difficile* resources for patients, clinicians, facilities and settings. These resources are available online at the following links:

www.cdc.gov/hai/organisms/cdiff/Cdiff_settings.html

www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Catheter-Associated Urinary Tract Infection (CAUTI) Rate

CAUTI: CMS HIIN Evaluation Measure		Outcome Measure
<i>Catheter-Associated Urinary Tract Infection (CAUTI) rate, reported separately for</i> <ul style="list-style-type: none"> • Measure 2a: CAUTI all units: ICUs (excluding NICUs) + Other Inpatient Units • Measure 2b: CAUTI ICU: ICUs excluding NICUs 		
Measure type	Outcome	
Numerator	Total number of observed healthcare-associated CAUTI among patients in bedded inpatient care locations	
Numerator Definition	Catheter-associated symptomatic urinary tract infections based on CDC NHSN CA-SUTI definition (all inpatient units excluding NICUs)	
Denominator	Total number of indwelling urinary catheter days for each location under surveillance for CAUTI during the data period	
Denominator Definition	Total number of urinary catheter days for all patients that have an indwelling urinary catheter in any inpatient unit (excluding NICUs)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right) \times 1,000$	
Specifications/definitions	Available from CDC NHSN	
Sources/Recommendations	Additional resources: CDC	
Data source(s)	NHSN – conferring rights recommended	
Data system(s)	NHSN or QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-CAUTI-2a: ICUs (excluding NICUs) + Other Inpatient Units; HIIN-CAUTI-2b: ICUs excluding NICUs

See page two for instructions on joining or conferring updated NHSN rights to the KHC HIIN group. This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the numerators and denominators for ICUs excluding NICUs **and** for ICUs excluding NICUs + Other Inpatient Units, separately, in QHi following the CDC specifications to define CAUTI. If a hospital does not have an ICU, report for all other hospital inpatient units for measure 2b.

The Partnership for Patients has also gathered many resources for CAUTI prevention and measurement. These resources are catalogued online at the following link:

https://partnershipforpatients.cms.gov/p4p_resources/tsp-catheterassociatedurinarytractinfections/toolcatheter-associatedurinarytractinfectionscauti.html

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Catheter-Associated Urinary Tract Infection (CAUTI) Standardized Infection Ratio (SIR) DERIVED

National Health Safety Network (NHSN) Reporting Facilities ONLY

CAUTI: CMS HIIN Evaluation Measure – NHSN Only – NQF 0138		Outcome Measure
<i>Catheter-associated Urinary Tract Infection (CAUTI) Standardized Infection Ratio (SIR)</i> <ul style="list-style-type: none"> • Measure 1a: CAUTI all units: ICUs (excluding NICUs) + Other Inpatient Units • Measure 1b: CAUTI ICU: ICUs (excluding NICUs) 		
Measure type	Outcome	
Numerator	Number of observed infections	
Denominator	Number of predicted infections	
SIR calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right)$	
Specifications/definitions Sources/Recommendations	Available from CDC NHSN Available from National Quality Forum (NQF) 0138 Additional resources: CDC	
Data source(s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the HRET HIIN group or a the KHC HIIN group. NHSN-conferring rights required.	
Data system(s)	NHSN (Calculated) Measure not available in QHi.	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-CAUTI-1a: ICUs (excluding NICUs) + Other Inpatient Units

HIIN-CAUTI-1b: ICUs excluding NICUs

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

The Partnership for Patients has also gathered many resources for CAUTI prevention and measurement. These resources are catalogued online at the following link:

https://partnershipforpatients.cms.gov/p4p_resources/tsp-catheterassociatedurinarytractinfections/toolcatheter-associatedurinarytractinfectionscauti.html

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Urinary Catheter Utilization Ratio

CAUTI: CMS HIIN Evaluation Measure		Process Measure
<i>Urinary Catheter Utilization Ratio</i> <ul style="list-style-type: none"> • <i>Measure 3a: CAUTI all units: ICUs (excluding NICUs) + Other Inpatient Units</i> • <i>Measure 3b: CAUTI ICU: ICUs excluding NICUs</i> 		
Measure type	Process	
Numerator	Total number of indwelling urinary catheter days for bedded inpatient care locations under surveillance (excluding patients in level II or III NICUs).	
Denominator	Total number of patient days for bedded inpatient care locations under surveillance (excluding patients in level II or III NICUs)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 100$	
Specifications/definitions Sources/Recommendations	Reporting protocol CDC NHSN Additional resources: CDC	
Data source(s)	NHSN OR in-hospital infection prevention surveillance systems and billing systems	
Data system(s)	NHSN or QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-CAUTI-3a: ICUs (excluding NICUs) + Other Inpatient Units; HIIN-CAUTI-3b: ICUs excluding NICUs

See page two for instructions on joining or conferring updated NHSN rights to the KHC Kansas HIIN group.

The CDC has developed numerous resources for CAUTI surveillance, definitions, data collection and reporting. These resources are available online, at the following link: www.cdc.gov/nhsn/acute-care-hospital/CAUTI/index.html

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that **have NOT conferred rights to their NHSN data**, must report the numerators and denominators for ICUs excluding NICUs **and** also for ICUs excluding NICUs + Other Inpatient Units, separately, in QHi following the CDC specifications to define CAUTI. IF a hospital does not have an ICU, report for all other hospital inpatient units for measure 3b.

The Partnership for Patients has also gathered many resources for CAUTI prevention and measurement. The resources are catalogued online at the following link: https://partnershipforpatients.cms.gov/p4p_resources/tsp-catheterassociatedurinarytractinfections/toolcatheter-associatedurinarytractinfectionscauti.html

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Central Line-Associated Blood Stream Infection (CLABSI) Rate

CLABSI: CMS HIIN Evaluation Measure – All Facilities		Outcome Measure
<i>Central Line-Associated Bloodstream Infection (CLABSI) Rates</i>		
<ul style="list-style-type: none"> • <i>Measure 1: CLABSI all units: ICUs + Other Inpatient Units</i> • <i>Measure 2: CLABSI ICU: All ICUs</i> 		
Measure type	Outcome	
Numerator	Total number of observed healthcare-associated CLABSI among patients in bedded inpatient care locations	
Denominator	Total number of central line days for each location under surveillance for CLABSI during the data period	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$	
Specifications/definitions Sources/Recommendations	Reporting protocol: CDC NHSN Additional resources: CDC	
Data source(s)	NHSN- conferring rights recommended	
Data system(s)	NHSN or QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-CLABSI-2a: All Inpatient Units
HIIN-CLABSI-2b: All ICUs

See page two for instructions on joining or conferring updated NHSN rights to the KHC Kansas HIIN group.

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data**, must report the numerators and denominators for All Inpatient Units and for All ICUs separately into QHi, following the CDC specifications to define CLABSI.

The Partnership for Patients has also gathered many resources for CLABSI prevention and measurement. These resources are catalogued online at the following link:

http://partnershipforpatients.cms.gov/p4p_resources/tsp-centralline-associatedbloodstreaminfections/toolcentralline-associatedbloodstreaminfectionsclabsi.html

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Central Line-Associated Blood Stream Infection (CLABSI) Standardized Infection Ratio (SIR)

DERIVED

NHSN Reporting Facilities ONLY

CLABSI: CMS HIIN Evaluation Measure – NHSN Only – NQF 0139		Outcome Measure
<i>Central Line-Associated Bloodstream Infection (CLABSI) Standardized Infection Ratio (SIR)</i> <ul style="list-style-type: none"> • Measure 1: CLABSI all units: ICUs + Other Inpatient Units • Measure 2: CLABSI ICU: All ICUs 		
Measure type	Outcome	
Numerator	Number of observed infections	
Denominator	Number of predicted infections	
SIR calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right)$	
Specifications/definitions Sources/Recommendations	Reporting protocol: CDC NHSN NQF information: NQF 0139 Additional resources: CDC	
Data source(s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the KHC HIIN group. NHSN- conferring rights required.	
Data system(s)	NHSN (Calculated) Not available in QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-CLABSI-1a: All Inpatient Units
 HIIN-CLABSI-1b: All ICUs

The Partnership for Patients has also gathered many resources for CLABSI prevention and measurement. These resources are catalogued online at the following link:

http://partnershipforpatients.cms.gov/p4p_resources/tsp-centralline-associatedbloodstreaminfections/toolcentralline-associatedbloodstreaminfectionsclabsi.html

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Central Line Utilization Ratio

CLABSI: CMS HIIN Evaluation Measure		Process Measure
<i>Central Line Utilization Ratio</i> <ul style="list-style-type: none"> • Measure 1: CLABSI all units: ICUs + Other Inpatient Units • Measure 2: CLABSI ICU: All ICUs 		
Measure type	Process	
Numerator	Total number of central line days for bedded inpatient care locations under surveillance	
Denominator	Total number of patient days for bedded inpatient care locations under surveillance	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 100$	
Specifications/definitions Sources/Recommendations	Reporting protocol: CDC NHSN Additional resources: CDC	
Data source(s)	NHSN (all inpatient locations) OR In-hospital infection prevention surveillance systems & billing systems	
Data system(s)	NHSN or QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-CLABSI-3a: All Inpatient Units; HIIN-CLABSI-3b: All ICUs

See page two for instructions on joining or conferring updated NHSN rights to the KHC Kansas HIIN group.

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the numerators and denominators for All Inpatient Units **and** also for All ICUs separately into QHi, following the CDC specifications to define CLABSI.

The Partnership for Patients has also gathered many resources for CLABSI prevention and measurement. These resources are catalogued online at the following link:

http://partnershipforpatients.cms.gov/p4p_resources/tsp-centrallineassociatedbloodstreaminfections/toolcentralline-associatedbloodstreaminfectionsclabsi.html

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Central Line Insertion Bundle Adherence Rate (Optional)

CLABSI: Optional Kansas Measure		Process Measure
<p><i>Central Line Insertion Bundle Adherence Rate (all-or-none bundle)</i></p> <ul style="list-style-type: none"> All Inpatient Units All ICUs (including NICUs) 		
Measure type	Process	
Numerator	Number of central line insertions during which all elements of the bundle were followed	
Numerator Definition	<p>Number of central line insertions adhering to each of the following CLIP bundle components:</p> <ol style="list-style-type: none"> Hand hygiene performed Appropriate skin prep <ul style="list-style-type: none"> Chlorhexidine gluconate (CHG) for patients greater than or equal to 2 months old Povidone iodine, alcohol, CHG, or other specified for children less than 2 months old Skin prep agent has completely dried before insertion All maximal sterile barriers used: Sterile gloves, Sterile gown, Cap, Mask worn, Large sterile drape (a large sterile drape covers the patient's entire body). 	
Denominator	Total number of central line insertions (ICUs including NICUs)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 100$	
Specifications/definitions Sources/Recommendations	Available from CDC NHSN	
Data source(s)	NHSN (all inpatient locations) OR In-hospital infection prevention surveillance systems & billing systems	
Data system(s)	NHSN (ICUs including NICUs, All units) QHi (All units)	
Baseline period	<p>Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible beginning with October 2016.</i></p>	
Monitoring period	Monthly, beginning October 2016	
Changes from HEN 2.0	<p>Note: This continues to be an optional process measure for Kansas hospitals reporting to NHSN. This measure is included in the Blue Cross Blue Shield of Kansas' 2017 Quality Based Reimbursement Program.</p>	

See page two for instructions on joining or conferring updated rights to the NHSN KHC Kansas HIIN group.

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Falls with Injury

Falls: CMS HIIN Evaluation Measure (NQF 0202)		Outcome Measure
<i>All Documented Patient Falls with an Injury Level of Minor or Greater</i>		
Measure type	Outcome	
Numerator	Total number of patient falls with an injury level of minor or greater (whether or not assisted by a staff member) by eligible hospital unit during the measurement period ⁴	
Numerator definition	<p>Total number of patient falls* of injury level minor or greater (whether or not assisted by a staff member) by eligible hospital unit during the measurement period (See detailed inclusion and exclusion criteria below.)</p> <p>*A patient fall is an unplanned descent to the floor (or extension of the floor, e.g., trash can or other equipment) with or without injury to the patient, and occurs on an eligible reporting nursing unit. All types of falls are to be included whether they result from physiological reasons (fainting) or environmental reasons (slippery floor). Include assisted falls-when a staff member attempts to minimize the impact of the fall. (Note: each fall is counted, even for patients who fall on multiple occasions). (See detailed inclusion and exclusion criteria below)</p>	
Denominator	Patient days in eligible units during the measurement period ⁵	
Denominator definition	Patient days by eligible units during the measurement period (See detailed inclusion and exclusion criteria below)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$	
Specifications/definitions Sources/Recommendations	Available from NQF 0202	
Data source(s)	Administrative preferred Billing systems, medical records, fall surveillance systems	
Data system(s)	QHi	
Baseline period	<p>Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between October 2015 through September 2016. <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i></p>	
Monitoring period	Monthly, beginning Oct 2016	
Changes from HEN 2.0	None	

HIIN-Falls-1

⁴ Extracted from NQF Quality Positioning System: <http://www.qualityforum.org/QPS/0202>

⁵ Includes inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: adult critical care, step-down, medical, surgical, medical-surgical combined, critical access and adult rehabilitation inpatient units

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Denominator Notes:

Included populations:

- Inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: adult critical care, step-down, medical, surgical, medical-surgical combined, critical access and adult rehabilitation inpatient units
- Patients of any age on an eligible reporting unit are included in the patient day count

Excluded Populations:

- Other unit types (e.g., pediatric, psychiatric, obstetrical, etc.)

Numerator Notes:

Included Populations:

- Falls with Fall Injury Level of "minor" or greater, including assisted and repeat falls with an injury level of minor or greater
- Patient injury falls occurring while on an eligible reporting unit

Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, adult rehabilitation inpatient.

National Database of Nursing Quality Indicators (NDNQI) fall definition:

A patient fall is an unplanned descent to the floor with or without injury to the patient. Include falls when a patient lands on a surface where you wouldn't expect to find a patient. All unassisted and assisted falls are to be included whether they result from physiological reasons (fainting) or environmental reasons (slippery floor). Also report patients that roll off a low bed onto a mat as a fall.

NDNQI definition for repeat fall:

More than one fall in a given month by the same patient after admission to this unit, may be classified as a repeat fall.

NDNQI definitions for injury:

- None – patient had no injuries (no signs or symptoms) resulting from the fall, if an x-ray, CT scan or other post fall evaluation results in a finding of no injury
- Minor – resulted in application of a dressing, ice, cleaning of a wound, limb elevation, topical medication, bruise or abrasion
- Moderate – resulted in suturing, application of steri-strips/skin glue, splinting or muscle/joint strain
- Major – resulted in surgery, casting, traction, required consultation for neurological (basilar skull fracture, small subdural hematoma) or internal injury (rib fracture, small liver laceration) or patients with coagulopathy who receive blood products as a result of the fall
- Death – the patient died as a result of injuries sustained from the fall (not from physiologic events causing the fall).

<http://www.qualityforum.org/QPS/0202> Measure History section

Additional references:

These data elements shall be submitted by all hospitals. The total patient days can be collected from billing systems. The number of patient falls could be collected from electronic clinical data or medical records, fall surveillance systems, injury reports, event tracking systems or other similar sources.

The Agency for Healthcare Research & Quality (AHRQ) has developed a comprehensive resource for measuring fall rates and fall prevention practices. The resource is available online at the following link:

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/index.html

The American Nurses Association (ANA) has published an article about measuring fall program outcomes. The article is available online at the following link:

www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume122007/No2May07/ArticlePreviousTopic/MeasuringFallProgramOutcomes.html

The Partnership for Patients has also gathered many resources for injuries from falls and immobility. These resources are catalogued online at the following link:

http://partnershipforpatients.cms.gov/p4p_resources/tsp-injuriesandfallsfromimmobility/toolinjuriesandfallsfromimmobility.html

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Falls with or without Injury (Optional)

Falls: Optional Kansas Measure (NQF 0141)		Outcome Measure
<i>All Documented Patient Falls with or without Injury</i>		
Measure type	Outcome	
Numerator	Number of patient falls	
Numerator definition	<p>Number of patient falls in the hospital or on the unit, with or without injury to the patient.</p> <p>A patient fall is an unplanned descent to the floor (or extension of the floor, e.g., trash can or other equipment) with or without injury to the patient, and occurs on an eligible reporting nursing unit. All types of falls are to be included whether they result from physiological reasons (fainting) or environmental reasons (slippery floor). Include assisted falls-when a staff member attempts to minimize the impact of the fall. (Note: each fall is counted even for patients who fall on multiple occasions). (See detailed inclusion and exclusion criteria below)</p>	
Denominator	Number of patient days	
Denominator definition	Patient days by eligible units during the measurement period (see detailed inclusion and exclusion criteria below)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$	
Specifications/definitions Sources/Recommendations	Available from NQF 0141	
Data source(s)	Billing systems, medical records, surveillance systems	
Data system(s)	QHi	
Baseline period	<p>Most recent calendar year</p> <p>Or the most recent, longest 12-, 9-, 6-, or 3-month period prior to Oct 2016</p>	
Monitoring period	Monthly, beginning Oct 2016	

Denominator Notes:

Included Populations:

- Inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: adult critical care, step-down, medical, surgical, medical-surgical combined, critical access and adult rehabilitation inpatient units
- Patients of any age on an eligible reporting unit are included in the patient day count

Excluded Populations:

- Other unit types (e.g., pediatric, psychiatric, obstetrical, etc.)

Numerator Notes:

Included Populations:

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

- Patient falls with or without injury occurring while on an eligible reporting unit

Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, adult rehabilitation in-patient.

National Database of Nursing Quality Indicators (NDNQI) fall definition:

A patient fall is an unplanned descent to the floor with or without injury to the patient. Include falls when a patient lands on a surface where you wouldn't expect to find a patient. All unassisted and assisted falls are to be included whether they result from physiological reasons (fainting) or environmental reasons (slippery floor). Also report patients that roll off a low bed onto a mat as a fall.

NDNQI definition for repeat fall:

More than one fall in a given month by the same patient after admission to this unit, may be classified as a repeat fall.

Additional references:

The Agency for Healthcare Research & Quality (AHRQ) has developed a comprehensive resource for measuring fall rates and fall prevention practices. The resource is available online at the following link:

www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/index.html

The American Nurses Association (ANA) has published an article about measuring fall program outcomes. The article is available online at the following link:

www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume122007/No2May07/ArticlePreviousTopic/MeasuringFallProgramOutcomes.html

The Partnership for Patients has gathered many resources for injuries from falls and immobility. These resources are catalogued online at the following link:

https://partnershipforpatients.cms.gov/p4p_resources/tsp-injuriesandfallsfromimmobility/toolinjuriesandfallsfromimmobility.html

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Hospital-Acquired Pressure Ulcer Prevalence, Stage 2+

Pressure Ulcer: CMS HIIN Evaluation Measure (NQF 0201)		Outcome Measure
<i>Pressure Ulcer/Injury Prevalence, Hospital-Acquired-Stage 2+</i>		
Measure type	Outcome	
Numerator	Patients with at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence measurement episode. ⁶	
Numerator definition	Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence measurement episode	
Denominator	All patients, 18 years of age or greater, surveyed for the measurement episode	
Denominator definition	<p>All patients surveyed for the measurement episode. Excluded populations:</p> <ul style="list-style-type: none"> • Patients who refuse to be assessed • Patients who are off the unit at the time of the prevalence measurement, i.e., surgery, x-ray, physical therapy, etc. • Patients who are medically unstable at the time of the measurement for whom assessment would be contraindicated at the time of the measurement, i.e., unstable blood pressure, uncontrolled pain, or fracture waiting repair. • Patients who are actively dying and pressure ulcer prevention is no longer a treatment goal. 	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 100$	
Specifications/definitions Sources/Recommendations	Available from NQF 0201	
Data source(s)	Surveillance systems	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016 Alternate: Quarterly, beginning with 4Q2016 (report in last month of each quarter)	
Changes from HEN 2.0	None	

HIIN-PrU-2

⁶ Extracted from NQF Quality Positioning System; <http://www.qualityforum.org/QPS/0201>

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

These data elements shall be submitted by all hospitals. Data can be collected through incident reporting, medical records, hospital discharge or administrative data. Hospitals are strongly encouraged to report pressure ulcer prevalence monthly.

The AHRQ has developed a comprehensive resource for measuring pressure ulcer rates and prevention practices. The resource is available online at the following link:

www.ahrq.gov/professionals/systems/hospital/pressureulcertoolkit/putool5.html

The Partnership for Patients has also gathered many resources for pressure ulcer prevention and measurement. These resources are catalogued online at the following link:

https://partnershipforpatients.cms.gov/p4p_resources/tsp-pressureulcers/toolpressureulcers.html

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Pressure Ulcer Rate, Stage 3+

Pressure Ulcer Rate, Stage 3+: CMS HIIN Evaluation Measure		Outcome Measure
<i>Pressure Ulcer Rate, Stages 3+ (preferred pressure ulcer measure)</i>		
Measure type	Outcome	
Numerator	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary diagnosis codes for pressure ulcer and any secondary diagnosis codes for pressure ulcer stage III or IV (or unstageable) ⁷	
Denominator	Surgical or medical discharges, for patients ages 18 years and older. Surgical and medical discharges are defined by specific DRG or MS DRG codes. ⁸	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$	
Specifications/definitions Sources/Recommendations	Available from AHRQ	
Data source(s)	Administrative data	
Data system(s)	QHi / Kansas State Inpatient Database	
Baseline period	Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between October 2015 through September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-PrU-1

These data elements shall be submitted by all hospitals. Data can be collected through incident reporting, hospital discharge, or administrative data.

The AHRQ has developed a comprehensive resource for measuring pressure ulcer rates and prevention practices. The resource is available online at the following link:

<http://www.ahrq.gov/professionals/systems/hospital/pressureulcertoolkit/putool5.html>

⁷ Extracted from AHRQ: http://www.qualityindicators.ahrq.gov/Modules/PSI_TechSpec.aspx

⁸ The measure specifications exclude stays less than 3 days. While CAHs are required to maintain an annual average length of stay of 96 hours or less (<https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/CritAccessHospfctsh.pdf>), CAHs are encouraged to use the AHRQ PSI specifications to track pressure ulcers for appropriate inpatient stays in their facilities, even if the inpatient stay is less than 3 days.

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Readmission within 30 Days (All Cause) Rate

Readmission: CMS HIIN Evaluation Measure		Outcome Measure
<i>Readmission within 30 Days (All Cause) (preferred readmission measure)</i>		
Measure type	Outcome	
Numerator	Inpatients returning as an acute care inpatient within 30 days of date of an inpatient discharge, to any facility, with the exception of certain planned admissions (Note: Not all hospitals can track readmissions to other facilities. Hospitals should focus on tracking readmissions consistently across time.)	
Numerator definition	Inpatients returning as an acute care inpatient to the same facility within 30 days of date of discharge	
Denominator	Total inpatient discharges (excluding discharges due to death)	
Denominator definition	Total inpatient discharges (excluding discharges due to death)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 100$	
Specifications/definitions Sources/Recommendations	Facilities should follow the CMS definition of a readmission. This definition is explained in the “Frequently asked questions about readmissions” chapter, available on Quality Net . “Chapter 3 – Readmissions Measures,” section “Defining readmissions” beginning on page 7. This is the same definition as is used for Medicare readmission measure but includes all payors.	
Data source(s)	Administrative data or billing systems or other tracking systems	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-READ-1

The Partnership for Patients has gathered many resources for readmissions prevention and measurement. These resources are catalogued online at the following link:
http://partnershipforpatients.cms.gov/p4p_resources/tsp-preventablereadmissions/toolpreventablereadmissions.html

The following types of admissions are not considered readmissions in the measures:

1. Planned readmissions as identified by a CMS algorithm. The algorithm is based on three principles:
 - a. A few specific, limited types of care are always considered planned (obstetric delivery, transplant surgery, maintenance chemotherapy/immunotherapy, rehabilitation);

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

- b. Otherwise, a planned readmission is defined as a non-acute readmission for a scheduled procedure; and
 - c. Admissions for acute illness or for complications of care are never planned. For the details of the planned readmission algorithm, please refer to the resources posted on the QualityNet website at Hospitals – Inpatient > Claims-Based Measures > Readmission Measures > Measure Methodology;
2. Same-day readmissions to the same hospital for the same condition. However, the readmission measures do consider patients as “readmitted if they had an eligible readmission to the same hospital on the same day but for a different condition;
 3. Observation stays and emergency department (ED) visits. These are not inpatient admissions and therefore are not considered potential readmissions;
 4. Admissions to facilities other than short-term acute care hospitals. Facilities such as rehabilitation centers, psychiatric hospitals, hospice facilities, long-term care or long-term acute care hospitals, and skilled nursing facilities do not meet the definition of a short-term acute hospital. Admissions to these facilities are not considered for the readmission outcome;
 5. Admissions that occur at eligible short-term acute care hospitals but where the patient is admitted to a separate, non-inpatient unit that bills under a separate CMS Certification Number (CCN), such as separate units for rehabilitation, psychiatric care, hospice care, or long-term care. Such admissions are not inpatient admissions and therefore are not considered as readmissions.

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Hospital-Wide All-Cause Unplanned Readmissions - Medicare

Readmission: CMS HIIN Evaluation Measure (NQF 1789)		Outcome Measure
<i>Hospital-Wide All Cause Unplanned Readmissions</i>		
Measure type	Outcome	
Numerator	An Medicare inpatient admission for any cause (with the exception of certain planned readmissions), within 30 days from the date of discharge	
Numerator definition	An inpatient Medicare admission for any cause (with the exception of certain planned readmissions), within 30 days from the date of discharge	
Denominator	Medicare patients discharged from the hospital	
Denominator definition	Total Medicare inpatient discharges (excluding discharges due to death)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right) \times 100$	
Specifications/definitions Sources/Recommendations	CMS (NQF 1789)	
Data source(s)	Administrative data or billing systems or other tracking systems	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	
Changes from HEN 2.0	New measure, not in HEN 2.0.	

HIIN-READ-2

This measure is currently publicly reported by CMS for those 65 years and older who are Medicare FFS beneficiaries admitted to non-federal hospitals. Hospitals are encouraged to report results for all Medicare inpatients, however, the Medicare FFS results are acceptable to report.

Note: This measure is a subset of the “Readmission within 30 Days (All Cause) Rate” measure (HIIN-READ-1). The only difference between this measure and HIIN-READ-1 is that this measure is limited to Medicare patients. See definition above for more details.

The Partnership for Patients has also gathered many resources for readmissions prevention and measurement. These resources are catalogued online at the following link:

https://partnershipforpatients.cms.gov/p4p_resources/tsp-preventablereadmissions/toolpreventablereadmissions.html

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Hospital-Onset Sepsis Mortality Rate

(Optional measure, prefer one of the other Sepsis measures)

Sepsis: CMS HIIN Evaluation Measure		Outcome Measure
<i>In-hospital deaths per 1,000 discharges, among patients 18-89 years or obstetric patients, with hospital-onset sepsis</i>		
Measure type	Outcome	
Numerator	Number of in-hospital deaths due to severe sepsis and septic shock	
Numerator Definition	Number of in-hospital deaths due to severe sepsis and septic shock	
Denominator	Number of patients with hospital-onset severe sepsis/septic shock. Note: hospital-onset is an infection that appears 48 hours or more after admission ⁹	
Denominator Definition	Number of patients with hospital-onset severe sepsis/septic shock	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$	
Specifications/definitions Sources/Recommendations	For specific diagnosis codes identifying severe sepsis / septic shock, refer to the numerator specifications for AHRQ PSI-13	
Data source(s)	Administrative claims, medical records	
Data system(s)	QHi / Kansas State Inpatient Database	
Baseline period	Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between October 2015 through September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	
Changes from HEN 2.0	Not in HEN 2.0. New measure for HIIN.	

HIIN-SEPSIS-1c

The Surviving Sepsis Campaign is a joint collaboration of the Society of Critical Care Medicine and the European Society of Intensive Care Medicine committed to reducing mortality from sepsis worldwide. The campaign provides guidelines, bundles, data collection and other resources: www.survivingsepsis.org/Pages/default.aspx.

The Society of Critical Care Medicine has many resources available for data collection related to the identification and management of sepsis and septic shock cases. These resources are available online at the following link: www.survivingsepsis.org/Data-Collection/Pages/default.aspx

ICD-10 Sepsis Codes: A021, A227, A267, A327, A400, A401, A403, A408, A409, A4101, A4102, A411, A412, A413, A414, A4150, A4151, A4152, A4153, A4159, A4181, A4189, A419, A427, A5486, B377, R6520, R6521, T8112XA

⁹ <http://www.surgeryencyclopedia.com/Fi-La/Hospital-Acquired-Infections.html#ixzz4OIGIPiWy>,
<http://bmcmmedicine.biomedcentral.com/articles/10.1186/1741-7015-12-40>,
<https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-015-0103-6>,
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3470069/>

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Overall Sepsis Mortality Rate

All Facilities

Sepsis: CMS HIIN Evaluation Measure		Outcome Measure
<i>In-hospital deaths per 1,000 discharges, among patients 18-89 years or obstetric patients, with sepsis</i>		
Measure type	Outcome	
Numerator	Number of in-hospital deaths due to severe sepsis and septic shock CMS excludes assignments to comfort/palliative care at or within 6 hours of admission to determine sepsis mortality.	
Numerator Definition	Deaths with severe sepsis and septic shock	
Denominator	Number of patients with severe sepsis/septic shock ¹⁰	
Denominator Definition	For specific diagnosis codes identifying severe sepsis / septic shock, refer to the numerator specifications for AHRQ PSI-13	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$	
Specifications/definitions Sources/Recommendations	For specific diagnosis codes identifying severe sepsis / septic shock, refer to the numerator specifications for AHRQ PSI-13	
Data source(s)	Administrative claims, medical records	
Data system(s)	QHi / Kansas State Inpatient Database	
Baseline period	Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between October 2015 through September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-SEPSIS-1d

The Surviving Sepsis Campaign is a joint collaboration of the Society of Critical Care Medicine and the European Society of Intensive Care Medicine committed to reducing mortality from sepsis worldwide. The campaign provides guidelines, bundles, data collection and other resources:

<http://www.survivingsepsis.org/Pages/default.aspx>.

The Society of Critical Care Medicine has many resources available for data collection related to the identification and management of sepsis and septic shock cases. These resources are available online at the following link: <http://www.survivingsepsis.org/Data-Collection/Pages/default.aspx>

ICD-10 Sepsis Codes: A021, A227, A267, A327, A400, A401, A403, A408, A409, A4101, A4102, A411, A412, A413, A414, A4150, A4151, A4152, A4153, A4159, A4181, A4189, A419, A427, A5486, B377, R6520, R6521, T8112XA

¹⁰ This measure includes hospital-onset sepsis cases, post-operative sepsis cases, AND any cases that present with sepsis to the hospital (for example, those cases coming in as transfers, or presenting in the emergency department). This measure focuses on measuring the management of sepsis patients once they are identified.

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Post-Operative Sepsis Rate

Facilities that perform inpatient surgeries

Sepsis: CMS HIIN Evaluation Measure – AHRQ PSI-13		Outcome Measure
<i>Postoperative sepsis cases (secondary diagnosis) per 1,000 elective surgical discharges for patients ages 18 years and older</i>		
Measure type	Outcome	
Numerator	Discharges among cases meeting the inclusion and exclusion rules for the denominator, with any AHRQ designated secondary ICD-10 diagnosis codes for sepsis.	
Numerator Definition	Discharges among cases meeting the inclusion and exclusion rules for the denominator, with any AHRQ designated secondary ICD-10-CM or ICD-10 diagnosis codes for sepsis.	
Denominator	Elective surgical discharges for patients ages 18 years and older, with any listed ICD-10-PCS procedure codes for an operating room procedure.	
Denominator Definition	Elective surgical discharges for patients ages 18 years and older	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right) \times 1,000$	
Specifications/definitions Sources/Recommendations	Available from AHRQ AHRQ PSI-13	
Data source(s)	Administrative Claims	
Data system(s)	QHi / Kansas State Inpatient Database	
Baseline period	Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between October 2015 through September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-SEPSIS-1a

Specifications link:

www.qualityindicators.ahrq.gov/Downloads/Modules/PSI/V50/TechSpecs/PSI_13_Postoperative_Sepsis_Rate.pdf

The Surviving Sepsis Campaign is a joint collaboration of the Society of Critical Care Medicine and the European Society of Intensive Care Medicine committed to reducing mortality from sepsis worldwide. The campaign provides guidelines, bundles, data collection and other resources: www.survivingsepsis.org/Pages/default.aspx

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

3-Hour Sepsis Bundle (Optional)

3-Hour Sepsis Bundle		Process Measure
<i>Surviving Sepsis treatment bundle to be completed within 3 hours of presentation.</i>		
Measure type	Process	
Numerator	Number of identified sepsis patients who receive all elements of the bundle.	
Numerator Definition	Measure lactate level, Obtain blood culture prior to administration of antibiotics, Administer broad spectrum antibiotics, Administer 30 ml/kg crystalloid for hypotension or lactate \geq 4 mmol/L.	
Denominator	Number of identified inpatient and ED sepsis patients.	
Denominator Definition	Number of identified inpatient and ED sepsis patients, treatment bundle should be initiated even if transferring to higher acuity facility.	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right) \times 1,000$	
Specifications/definitions Sources/Recommendations	Society of Critical Medicine & Surviving Sepsis Campaign. http://www.survivingsepsis.org/Bundles/Pages/default.aspx	
Data source(s)	EHR/EMR, Risk Management Systems	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible beginning with October 2016.</i>	
Monitoring period	Monthly, beginning October 2016	

The Surviving Sepsis Campaign is a joint collaboration of the Society of Critical Care Medicine and the European Society of Intensive Care Medicine committed to reducing mortality from severe sepsis and septic shock worldwide. The campaign provides guidelines, bundles, data collection and other resources:
www.survivingsepsis.org/Pages/default.aspx

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

6-Hour Sepsis Bundle (Optional)

6-Hour Sepsis Bundle		Process Measure
<i>Surviving Sepsis treatment bundle to be completed within 6 hours of presentation.</i>		
Measure type	Process	
Numerator	Number of identified sepsis patients who receive all elements of the bundle.	
Numerator Definition	Apply vasopressors (for hypotension that does not respond to initial fluid resuscitation) to maintain a mean arterial pressure (MAP) ≥65mmHg. In the event of persistent hypotension after initial fluid administration (MAP < 65 mm Hg) or if initial lactate was ≥4 mmol/L, re-assess volume status and tissue perfusion and document findings according to Table 1. Re-measure lactate if initial lactate elevated.	
Denominator	Number of identified inpatient and ED sepsis patients.	
Denominator Definition	Number of identified inpatient and ED sepsis patients, treatment bundle not be applicable for hospitals transferring to a higher acuity facility within six hours. Accepting facilities should include inbound transfers.	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right) \times 1,000$	
Specifications/definitions Sources/Recommendations	Society of Critical Medicine & Surviving Sepsis Campaign. http://www.survivingsepsis.org/Bundles/Pages/default.aspx	
Data source(s)	EHR/EMR, Risk Management Systems	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible beginning with October 2016.</i>	
Monitoring period	Monthly, beginning October 2016	

The Surviving Sepsis Campaign is a joint collaboration of the Society of Critical Care Medicine and the European Society of Intensive Care Medicine committed to reducing mortality from severe sepsis and septic shock worldwide. The campaign provides guidelines, bundles, data collection and other resources:

www.survivingsepsis.org/Pages/default.aspx

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Surgical Site Infection (SSI) Rate

Facilities that perform certain inpatient surgeries (Option 1)

SSI: CMS HIIN Evaluation Measure		Outcome Measure
Surgical Site Infection Rate – separately for: <ul style="list-style-type: none"> • <i>Measure 1a: Colon Surgeries (COLO)</i> • <i>Measure 1b: Abdominal hysterectomies (HYST)</i> • <i>Measure 1c: Total Knee Replacements (KPRO)</i> • <i>Measure 1d: Total Hip Replacements (HPRO)</i> 		
Measure type	Outcome	
Numerator	Total number of surgical site infections based on CDC NHSN definition	
Denominator	All patients having any of the procedures included in the selected NHSN operative procedure category(s)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 100$	
Specifications/definitions Sources/Recommendations	Protocol from CDC NHSN Additional Resources: NHSN SSI	
Data source(s)	Infection surveillance systems	
Data system(s)	NHSN preferred or QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-SSI-2a: Colon surgeries, HIIN-SSI-2b: Abdominal hysterectomies, HIIN-SSI-2c: Total knee replacements, HIIN-SSI-2d: Total hip replacement

See page two for instructions on joining or conferring updated rights to the NHSN KHC Kansas HIIN group. This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in an NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals **that do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data to KHC Kansas HIIN** group must report the numerators and denominators for these for specific surgeries separately, following the CDC specifications for these four specific surgeries separately, following the CDC specifications to define SSI.

The Partnership for patients has also gathered many resources for SSI prevention and measurement. These resources are catalogued online at the following link:

http://partnershipforpatients.cms.gov/p4p_resources/tsp-surgicalsiteinfections/toolsurgicalsiteinfections.html

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Surgical Site Infection (SSI) Standardized Infection Ratio (SIR) *DERIVED*

NHSN Reporting Facilities ONLY

SSI: CMS HIIN Evaluation Measure – NHSN Only (NQF 0753)		Outcome Measure
<i>Surgical Site Infection (SSI) Standardized Infection Ratio (SIR) – separately for each procedure</i>		
<i>Measure 1a: Colon Surgeries (COLO)</i>		
<i>Measure 1b: Abdominal hysterectomies (HYST)</i>		
<i>Measure 1c: Total knee replacements (KPRO)</i>		
<i>Measure 1d: Total hip replacements (HPRO).</i>		
Measure type	Outcome	
Numerator	Number of observed infections	
Denominator	Number of predicted infections	
SIR calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right)$	
Specifications/definitions Sources/Recommendations	Available from CDC NHSN Additional resources: CDC	
Data source(s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the HRET HIIN group or a state group. NHSN-conferring rights required.	
Data system(s)	NHSN (Calculated) Not available in QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning Oct 2016	

HIIN-SSI-1a, -1b, -1c, -1d

See page two for instructions on joining or conferring updated rights to the NHSN KHC Kansas HIIN group.

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

The Partnership for Patients has also gathered many resources for SSI prevention and measurement. These resources are catalogued online at the following link:

http://partnershipforpatients.cms.gov/p4p_resources/tsp surgical site infections/toolsurgicalsiteinfections.html

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Surgical Site Infection (SSI) Rate All Procedures (Optional)
 (Option 2 – for facilities not performing Option 1-specified surgeries)

SSI: Optional Kansas Measure		Outcome Measure
<i>Surgical Site Infection (SSI) Rate – All Surgeries</i>		
Measure type	Outcome	
Numerator	Number of SSIs	
Numerator definition	Total number of surgical site infections occurring within 30 days after selected operative procedures	
Denominator	Number of surgical procedures	
Denominator definition	All patients undergoing surgical procedures. Include patients undergoing surgical procedures defined in Table 1 of the CDC SSI Event definition (pages 3-8). Exclude procedures during which patient expired in the operating room	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 100$	
Specifications/definitions Sources/Recommendations	Available from CDC NHSN	
Data source(s)	Infection surveillance systems	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	
Notes	There are two options for SSI outcome measures. Facilities that report on SSI measures for colon surgeries, abdominal hysterectomies, total hip replacements and/or total knee replacements through the NHSN are encouraged to use Option 1 measures. Facilities that do not perform these procedures are encouraged to use Option 2.	

The CDC has developed numerous resources for SSI surveillance, definitions, data collection and reporting. These resources are available online, at the following link:

<http://www.cdc.gov/nhsn/acute-care-hospital/SSI/index.html>

The Partnership for Patients has also gathered many resources for SSI prevention and measurement. These resources are catalogued online at the following link:

https://partnershipforpatients.cms.gov/p4p_resources/tsp-surgicalsitereinfections/toolsurgicalsitereinfections.html

For questions about HIIN measures or data submission,
 contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Post-Operative Pulmonary Embolism or Venous Thrombosis (VTE) Rate

Facilities that perform inpatient surgeries

Post-Operative Pulmonary or Deep Vein Thrombosis Rate: CMS HIIN Evaluation Measure		Outcome Measure
<i>Post-Operative Pulmonary Embolism (PE) or Deep Vein Thrombosis (DVT) Rate</i>		
Measure type	Outcome	
Numerator	Number of surgical patients that develop a post-operative PE or DVT	
Denominator	All surgical discharges age 18 and older defined by specific DRGs or MS-DRGs and a procedure code for an operating room procedure.	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$	
Specifications/definitions Sources/Recommendations	AHRQ PSI-12	
Data source(s)	Administrative data, Billing systems	
Data system(s)	QHi / Kansas State Inpatient Database	
Baseline period	Preferred: October 1, 2015 to September 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between October 2015 through September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning Oct 2016	

HIIN-VTE-1

Specifications link:

https://www.qualityindicators.ahrq.gov/Downloads/Modules/PSI/V60-ICD10/TechSpecs/PSI_12_Periooperative_Pulmonary_EMBOLISM_or_Deep_Vein_Thrombosis_Rate.pdf

Additional references:

The AHRQ has developed several resources for the patient safety indicators. These resources are available online at the following links:

http://www.qualityindicators.ahrq.gov/modules/psi_resources.aspx
http://qualityindicators.ahrq.gov/Modules/PSI_TechSpec_ICD10.aspx

The Partnership for Patients has also gathered many resources for venous thromboembolism (VTE) prevention and measurement. These resources are catalogued online at the following link:

https://partnershipforpatients.cms.gov/p4p_resources/tsp-venusthromboembolism/toolvenousthromboembolismvte.html

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Potentially preventable Venous Thromboembolism (Optional)

VTE: Optional Kansas Measure (Joint Commission VTE-6)		Outcome Measure
<i>The number of patients diagnosed with confirmed VTE during hospitalization (not present at admission) who did not receive VTE prophylaxis between hospital admission and the day before the VTE diagnostic testing order date</i>		
Measure type	Outcome	
Numerator	Number of patients who received no VTE prophylaxis prior to the VTE diagnostic test order date	
Numerator Definition	Included Populations: Not Applicable Excluded Populations: None	
Denominator	Number of patients who developed confirmed VTE during hospitalization	
Denominator Definition	Included Populations: 1. Discharges with an ICD-9-CM Other Diagnosis Codes of VTE as defined in Appendix A, Table 7.03 or 7.04 Excluded Populations: 1. Patients less than 18 years of age 2. Patients who have a length of stay greater than 120 days 3. Patients with Comfort Measures Only documented 4. Patients enrolled in clinical trials 5. Patients with ICD-9-CM Principal Diagnosis Code of VTE as defined in Appendix A, Table 7.03 or 7.04 6. Patients with VTE Present at Admission 7. Patients with reasons for not administering mechanical and pharmacologic prophylaxis 8. Patients without VTE confirmed by diagnostic testing.	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right) \times 100$	
Specifications/definitions Sources/Recommendations	Available from CMS	
Data source(s)	Chart	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016	
Monitoring period	Monthly, beginning October 2016	

CMS specification link:

www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228774725171

The Joint Commission Specifications Manual for National Hospital Inpatient Quality (VTE-6)

www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Ventilator-Associated Condition (VAC)

VAE: CMS HIIN Evaluation Measure		Outcome Measure
<i>Ventilator Associated Condition (VAC)</i>		
Measure type	Outcome	
Numerator	Number of events that meet the criteria of VAC; including those that meet the criteria for infection-related ventilator-associated complication (IVAC) and possible/probable ventilator-associated pneumonia (VAP)	
Denominator	Number of ventilator days	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$	
Specifications/definitions Sources/Recommendations	Available from CDC NHSN Additional resources: CDC	
Data source(s)	NHSN- conferring rights recommended	
Data system(s)	NHSN Not available in QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-VAE-1

See page two for instructions on joining or conferring updated rights to the NHSN KHC Kansas HIIN group.

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in an NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the numerators and denominators following the CDC specifications for VAE surveillance:

www.cdc.gov/nhsn/acute-care-hospital/VAE/index.html

The Partnership for Patients has also gathered many resources for VAE prevention and measurement. These resources are catalogued online at the following link:

https://partnershipforpatients.cms.gov/p4p_resources/tsp-ventilator-associatedpneumonia/toolventilator-associatedpneumoniavap.html

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Infection-Related Ventilator-Associated Complication (IVAC)

Facilities that use ventilators

VAE: CMS HIIN Evaluation Measure		Outcome Measure
<i>Infection-Related Ventilator-Associated Complication (IVAC)</i>		
Measure type	Outcome	
Numerator	Number of events that meet the criteria of infection-related ventilator-associated condition (IVAC); including those that meet the criteria for Possible/Probable VAP	
Denominator	Number of ventilator days	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$	
Specifications/definitions Sources/Recommendations	Available from CDC NHSN Additional resources: CDC	
Data source(s)	NHSN- conferring rights recommended	
Data system(s)	NHSN Not available in QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-VAE-2

See page two for instructions on joining or conferring updated rights to the NHSN KHC Kansas HIIN group.

For hospitals in an NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that **NOT conferred rights to their NHSN data** must report the numerators and denominators following the CDC specifications for VAE surveillance:

www.cdc.gov/nhsn/acute-care-hospital/VAE/index.html

The Partnership for Patients has gathered many resources for VAE prevention and measurement. These resources are catalogued online at the following link:

https://partnershipforpatients.cms.gov/p4p_resources/tsp-ventilator-associatedpneumonia/toolventilator-associatedpneumoniavap.html

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Possible Ventilator Associated Pneumonia (PVAP)

(optional measure)

PVAP: CMS HIIN Evaluation Measure		Outcome Measure
<i>Possible Ventilator Association Pneumonia (PVAP)</i>		
Measure type	Outcome	
Numerator	Number of observed PVAPs	
Denominator	Number of ventilator days	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$ ventilator days	
Specifications/definitions Sources/Recommendations	CDC NHSN	
Data source(s)	NHSN- conferring rights recommended	
Data system(s)	NHSN – conferring rights to KHC HIIN group highly recommended If not possible to enter into NHSN, enter into QHi	
Baseline period	TBD	
Monitoring period	Monthly, beginning October 2019	

HIIN-VAE-3

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Harm Events Related to Patient Handling

Worker Safety: CMS HIIN Evaluation Measure		Outcome Measure
<i>Number of worker harm events related to patient handling</i>		
Measure type	Outcome	
Numerator	Number of worker harm events related to patient handling	
Numerator Definition	Number of worker harm events related to patient handling	
Denominator	Number of full-time equivalents (FTEs)	
Denominator Definition	Number of full-time equivalents (FTEs) (Average per/year)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 100$	
Specifications/definitions Sources/Recommendations	Available from the Occupational Safety & Health Administration	
Data source(s)	Hospital reporting on OSHA Form 300	
Data system(s)	QHi	
Baseline period	Preferred: Earliest three-month period January 1, 2014 to September 30, 2016 Alternate: Alternate Q4 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-WS-1b

The Occupational Safety & Health Administration (OSHA) provides a range of resources to improve safety in the hospital, as well as the case for improvement in worker safety in the hospital. Some of these resources are available online at the following links:

<https://www.osha.gov/dsg/hospitals/index.html>

https://www.osha.gov/dsg/hospitals/documents/1.2_Factbook_508.pdf

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Harm Events Related to Workplace Violence

Worker Safety: CMS HIIN Evaluation Measure		Outcome Measure
<i>Number of worker harm events related to workplace violence</i>		
Measure type	Outcome	
Numerator	Number of associated harm events related to workplace violence	
Numerator Definition	Number of worker harm events related to workplace violence	
Denominator	Number of full-time equivalents (FTEs)	
Denominator Definition	Number of full-time equivalents (FTEs) (Average per/year)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 100$	
Specifications/definitions Sources/Recommendations	OSHA Violence Incidence Report Form https://www.osha.gov/SLTC/etools/hospital/hazards/workplaceviolence/incidentreportform.html	
Data source(s)	Hospital reporting on OSHA form 300, HR records	
Data system(s)	QHi	
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, 3-month consecutive period prior to October 2016. <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning Oct 2016	

HIIN-WS-1c

The Occupational Safety & Health Administration and The Centers for Disease Control and Prevention (CDC)/the National Institute for Occupational Safety and Health (NIOSH) provide general resources about workplace violence and violence in hospitals:

<https://www.osha.gov/SLTC/workplaceviolence/>

<https://www.osha.gov/dte/library/wp-violence/healthcare/>

<http://www.cdc.gov/niosh/docs/2002-101/>

<http://www.cdc.gov/niosh/docs/2006-144/pdfs/2006-144.pdf>

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

Hospital-onset MRSA Bacteremia Events

Methicillin-resistant Staphylococcus aureus (MRSA): CMS HIIN Evaluation Measure		Outcome Measure
<i>Hospital-onset MRSA bacteremia events</i>		
Measure type	Outcome	
Numerator	MRSA bacteremia events	
Numerator Definition	Total number of observed hospital-onset (>3days) MRSA lab-identified events among all inpatients in the facility, excluding well-baby nurseries and NICUs. Positive tests occurring for the same patient and location within 14 days of a previous test are duplicative and should only be counted once.	
Denominator	Patient days (facility-wide)	
Denominator Definition	Patient days (facility-wide)	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}}\right) \times 1,000$	
Specifications/definitions Sources/Recommendations	Available from the Centers for Disease Control and Prevention	
Data source(s)	NHSN, infection surveillance systems	
Data system(s)	NHSN or QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and September 2016 <i>If measure not tracked prior to HIIN, report monthly as early as possible.</i>	
Monitoring period	Monthly, beginning October 2016	

HIIN-MRSA-2

See page two for instructions on joining or conferring updated NHSN rights to the KHC Kansas HIIN group. This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the monthly numerators and denominators in QHi following the CDC specifications to *define MRSA bacteremia events*. Specification link: www.cdc.gov/nhsn/PDFs/pscManual/12pscMDRO_CDADcurrent.pdf

The Centers for Disease Control and Prevention (CDC) provides extensive MRSA resources for patients, clinicians, facilities and settings. These resources are available online at the following links:

<http://www.cdc.gov/HAI/organisms/mrsa-infection.html>

<http://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html>

For questions about HIIN measures or data submission, contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

MRSA Bacteremia – Standardized Infection Ratio (SIR) (DERIVED)

NHSN Reporting Facilities Only

Methicillin-resistant Staphylococcus aureus (MRSA): CMS HIIN Evaluation Measure		Outcome Measure
<i>MRSA Bacteremia – SIR</i>		
Measure type	Outcome	
Numerator	Number <i>MRSA</i> LabID Events in inpatient location > 3 days after admission to the facility	
Denominator	Predicted cases of patients with <i>MRSA bacteremia</i>	
Rate calculation	$\left(\frac{\text{Numerator}}{\text{Denominator}} \right)$	
Specifications/definitions Sources/Recommendations	Available from the Centers for Disease Control and Prevention	
Data source(s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to KHC Kansas HIIN group. NHSN-conferring rights required.	
Data system(s)	NHSN (Calculated) Not available in QHi	
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period between January 2015 and October 2016	
Monitoring period	Quarterly, beginning Oct 2016 – enter in the data monthly	
Changes from HEN 2.0	Not in HEN 2.0. New measure in HIIN.	

HIIN-MRSA-1

See page two for instructions on joining or conferring updated NHSN rights to the KHC Kansas HIIN group.

Specification link: www.cdc.gov/nhsn/PDFs/pscManual/12pscMDRO_CDADcurrent.pdf

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

The Centers for Disease Control and Prevention (CDC) provides extensive *MRSA* resources for patients, clinicians, facilities and settings. These resources are available online at the following links:

<http://www.cdc.gov/HAI/organisms/mrsa-infection.html>

<http://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html>

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

APPENDIX:

KHC HIIN Monitoring Data Submission Schedule

Outcome & Process Measures for HACs occurring in:	Readmissions for index discharges in, and SSI for procedures performed in:	Submission Due
March 2018	February 2018	April 30, 2018
April 2018	March 2018	May 31, 2018
May 2018	April 2018	June 30, 2018
June 2018	May 2018	July 31, 2018
July 2018	June 2018	August 31, 2018
August 2018	July 2018	September 30, 2018
September 2018	August 2018	October 31, 2018
October 2018	September 2018	November 30, 2018
November 2018	October 2018	December 31, 2018
December 2018	November 2018	January 31, 2018
January 2019	December 2018	February 28, 2018

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AHRQ PSI Codes

AHRQ Patient Safety Indicators (PSI) Technical Specifications Update – Version 6.0 (ICD-10), July 2016

https://www.qualityindicators.ahrq.gov/Modules/PSI_TechSpec_ICD10_v60.aspx

The ICD-10 codes below are to assist in measurement extraction from EHR, billing, or claims systems and do not represent the entirety of the measure specification. Elements such as age, patient type (obstetric, surgical, etc.), and length of stay may also be applicable. Please review the full measure specification linked above.

AHRQ also provides software to calculate measures from inpatient claims or discharge extracts.

www.qualityindicators.ahrq.gov/software/winqi.aspx

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

NHSN to QHi Transfer FAQs

As of October 26, 2017, hospitals participating in the Kansas Healthcare Collaborative Hospital Improvement Innovation Network (KHC HIIN) that submit hospital-acquired infection data to National Healthcare Safety Network (NHSN) can now view their monthly aggregated NHSN data in Quality Health Indicators (QHi). KHC and the QHi staff at the Kansas Hospital Association's Educational and Research Foundation completed development of the new process to transfer HAI data submitted to NHSN to QHi for the HIIN measures.

The transfer process serves several purposes: to increase the hospital's ability to perform self-service data analysis in QHi, to increase the overall utility of QHi for member facilities, and to reduce potentially duplicative data entry burden. KHC HIIN hospitals provided permission to KHC and QHi as part of their QHi addendum for the HIIN project.

Q: What data will be transferred?

A: CAUTI, SSI, MRSA, *C. difficile*, and Standardized Infection Ratios (SIRs).

Q: Will the transfer change what is in QHi?

A: Yes. The transfer will over-write what currently exists in QHi. Because we use the NHSN measure definitions, the information should be identical.

Q: How often will the transfer happen?

A: Once monthly, synchronized with the KHC HIIN analytic report cycle. The upload will be done after the final monthly HIIN data analytic reports are sent to hospitals.

Q: How will I know if the transfer has changed data I've entered?

A: QHi will display a "Loaded by NHSN" message next to the individual months for each measure.

Q: What if the transferred information is incorrect?

A: Please correct the information in NHSN. If discrepancies persist, please contact KHC's HIIN Measures and Data Director Eric Cook-Wiens by email at ecook-wiens@khconline.org.

Q: Is there any additional action I need to take?

A: No. When your facility joined the KHC HIIN, there was an optional transfer check box as part of the data sharing agreement. Facilities which did not check this box have received a follow-up email confirming their agreement to the transfer.

Q: Why is this necessary?

A: QHi has a wealth of reporting and comparison features which do not exist in NHSN. This transfer will allow facilities to utilize these features.

Q: How far back will the data transferred go?

A: We will transfer data starting January 2015 through the present.

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.